

MTS Vision 2020 Document

This document provides a general vision statement, guiding principles, and characteristics for the nation's Marine Transportation System (MTS) in the year 2020. This vision represents stakeholder consensus on the desired future state of the MTS and provides the foundation for strategy development. This document will be updated continually to retain its future focus and provide direction for long-range functions like master planning, research and development, legislation, and programming.

I. General Vision Statement

The U. S. Marine Transportation System will be the world's most technologically advanced, safe, secure, efficient, effective, accessible, globally competitive, dynamic, and environmentally responsible system for moving goods and people.

II. Guiding Principles of MTS 2020

The following broad, fundamental principles will guide stakeholders in developing strategies and action plans to achieve MTS 2020:

- ◆ Integration of the MTS with domestic and international transportation systems will provide for national security, ensure economic well-being, and enhance quality of life.
- ◆ Clearly defined, coordinated and consistent Federal leadership is needed to achieve the vision for the MTS.
- ◆ Public-private sector partnerships will meet MTS challenges through shared responsibility, accountability and agreement on funding.
- ◆ MTS decisions will be based on full consideration of and balance among diverse interests.
- ◆ Aggressive, cost-effective technology development and deployment is essential to maintaining long-term competitiveness.
- ◆ People -- workforce, passengers and other stakeholders -- are critical to the successful operation of the MTS, and human factors are integral to its development.

III. Characteristics of MTS 2020

The following sections address the principal components, primary functions, support systems, and general system-wide attributes of MTS 2020.

A. Principal Components

The MTS is comprised of waterways, ports, and their intermodal connections. Although there are many other major elements or subcomponents of the system (e.g., domestic and international fleets, shipyards, freight transportation corridors, recreational boating, etc.), for the sake of brevity, this document deals only with the principal components. Although each is described separately, all are integral components of the MTS that require coordination for the system to operate efficiently and effectively.

Waterways include the navigable waters of the United States and associated infrastructure (e.g., locks, aids to navigation) that are used by vessel traffic. Channel depth and width will be maintained consistent with demand while achieving cost efficiency and promoting improved environmental quality. Locks, aids to navigation, and other infrastructure will be maintained for efficient and safe operations.

Ports are those marine transportation facilities where vessels dock or anchor for loading or unloading cargo and passengers. Ports will be located and sized to ensure convenient and ready access with characteristics that reflect the markets they serve. Port facilities, such as anchorages and piers, will be sized for the range of vessels and traffic expected to be using the system in 2020.

Intermodal connections are linkages required at the land-water boundary to allow the transfer of cargo and passengers between transportation modes. Intermodal connections include pipelines, road and rail access routes, state-of-the-art intermodal cargo handling equipment, and communication technology. The connections must maximize throughput and minimize transloading times and costs. Shore side infrastructure planning, investments, and waterfront development will ensure that access to ports and waterways are sufficient to sustain the current and projected traffic and operations of the ports.

B. Primary Functions

The Marine Transportation System in 2020 will serve three primary functions: domestic transportation of goods and passengers, gateways to world markets, and recreational and other commercial activities.

Domestic transportation of goods and passengers. The MTS is an integral component of the entire domestic and international transportation system by providing shippers and travelers with a waterborne means of transportation that is modern, fuel efficient, cost-effective, dependable, safe, and environmentally sound. Market demands will size the capacity of the system, which in turn will foster the economic development of supported regions, particularly that dependent on cost-effective transportation. The domestic waterborne transportation system will be characterized by full integration with international ports and with other transportation modes, and by the use of technology and standards that improve effectiveness and productivity. Surface and vessel transportation, ports, waterways, and intermodal connection capacities will be balanced for optimal efficiency. The use of an Intelligent Transportation System (ITS) will optimize traffic management, allowing for the full use of system capacity while minimizing congestion,

delays, and costs. Finally, the MTS in 2020 will provide rapid, efficient transportation of military cargo and supplies in support of national defense.

Gateways to world markets. As gateways to world markets, the MTS in 2020 will operate with modern infrastructure provided by dependable funding sources, utilizing optimal technology. In terms of speed, safety, security, capacity, efficiency, and environmental enhancement, the system will be world class. The system's component capacities will be coordinated through a robust ITS such that the inland transportation capacity matches gateway throughput. Gateway capacity will account for growth, competition, back-up capacity, and surge capability for the national defense. Consolidated and coordinated government (federal, state, local) requirements and regulations will streamline the administrative and funding procedures for infrastructure improvements and rapid freight throughput.

Recreational and other commercial activities. The MTS in 2020 also will support recreational and other commercial activities, such as fishing, power generation, and waterfront development that contribute to the nation's quality of life. With the increasing volume of both recreational and commercial traffic, additional vessel traffic routing measures will be needed, as will other accommodations to ensure proper integration of recreational and commercial requirements. The vision is an automated, non-intrusive more capable traffic management system that separates or controls vessel traffic. Waterfront development planning will consider the needs of all system users and other land use (e.g. residential, commercial, industrial, parklands and environmental sanctuaries).

C. Support Systems

Intelligent Transportation System. ITS is a collection of electronic communication and information systems and networks that provides the means for collecting, storing, retrieving, analyzing, and disseminating up-to-date information required by all MTS stakeholders and users. Where appropriate, MTS ITS will be integrated with the ITS of other transportation modes. Integration will ensure the smooth and efficient movement of freight and passengers within and between modes and maximize utilization of the system. ITS will ensure dependable and uninterrupted service to support the following:

- ◆ Efficient and safe vessel operations by providing, where deemed necessary by the local port community, dependable communications and real-time, all-weather, dependable information on vessel location, keel clearances, water and channel conditions, other vessel traffic, delays, and hazards.
- ◆ Electronic and satellite navigation will allow for the removal of physical aids to navigation where doing so would not compromise safety for commercial or recreational waterway users.
- ◆ Efficient administration by providing a single freight/shipper database. Cargo and vessel data entered once will be interoperable, and will meet all federal, state, and

local information requirements. Consolidation will allow carriers, shippers, and federal, state, and local agencies to coordinate regulatory actions, eliminate redundancies, and increase administrative efficiencies. In conjunction with the ITS of other transportation modes, the MTS ITS will provide total in-transit visibility of cargo and passengers.

- ◆ Informed decision making by all stakeholders and system users concerning mode, route, and schedule choices; maintenance, repair, construction, and operating schedules; and research and development, infrastructure investment, and user fee policies.

Management system. The management system will be a confederation of systems and processes to facilitate collective direction and management of the MTS which is loosely owned by a diverse stakeholder group. This management system will serve users, operators, managers, and regulators by allowing for the coordination of planning, research and development, budgetary programming, operations, and maintenance across all timeframes—current, near term, and long range. Furthermore, the management system will:

- ◆ Ensure that governing laws and regulations are periodically reviewed for their economic impact on trade and various sectors of the US economy.
- ◆ Include several tiers (e.g., local, regional/state, and national). Participation at each tier will be open to both private and public stakeholders and allow comprehensive consideration of all interests. An established structure will facilitate communications between tiers as well, allowing issues to be raised at the appropriate level for quick resolution through dialog and negotiations among all stakeholders.
- ◆ Reduce regulatory burdens by facilitating coordination and streamlining of laws and regulations, policy, R&D and human resource planning functions, and dialog among all stakeholders.
- ◆ Be agile enough for timely decision making on short-term national emergency issues while maintaining long-range objectives.
- ◆ Be forward looking to allow for timely decisions on policy, investment, and research and development to provide for a world-class, technically advanced MTS.
- ◆ Provide the mechanism for systematic planning with other transportation modes for national defense requirements, emergency operations, and legislative action.
- ◆ Provide for a capable and educated workforce.

D. General System-Wide Attributes

Safety. Safe operations result in increased efficiency of the Marine Transportation System protecting life, property, and the environment. Safety will continue to be a high priority of all stakeholders and system users. The MTS in 2020 will include the following safety attributes:

- ◆ Compliance with standards for personnel qualifications and for the design, construction, operation, and maintenance of vessels, infrastructure and equipment.
- ◆ Safety standards that are routinely evaluated and updated to insure that they remain relevant to the changing equipment and operations of a continually evolving system.
- ◆ Appropriate skills, training, and experience for all people working and recreating in the MTS.
- ◆ Well-developed and exercised safety and contingency plans to prevent and respond to incidents.
- ◆ Creative use of technology and information that contributes to safe operations in all geographic, geospatial, and environmental conditions.
- ◆ Collection, analysis, and distribution of information about marine casualties, near-miss incidents, and other lessons learned.
- ◆ The U.S. will continue to reflect a leadership role in raising international standards.
- ◆ Forums to provide greater access to marine safety expertise and resources.
- ◆ Investments in safety that match or exceed the anticipated increased risks resulting from emerging technology and changes in operations.

Security. The MTS in 2020 must support (1) national security efforts to ensure quick, secure, and efficient support of all types of military operations, (2) law enforcement efforts to detect and prevent movement of contraband, theft, illegal immigration, and other criminal or terrorist activities and (3) quick and efficient response to disasters.

The following security attributes apply:

- ◆ Critical infrastructure is designed and operated to detect, prevent and/or mitigate system disruptions due to natural and man made disasters.
- ◆ System approach for rapid restoration of Marine Transportation System services disrupted by natural or manmade disasters.
- ◆ Assured/uninterrupted capability to deploy forces and material in support of national security operations.

- ◆ Real-time intelligent systems for tracking of maritime cargo and personnel transportation operations, which support detection and deterrence of smuggling, cargo theft, tariff evasion, terrorism, and other potential acts of violence. These systems must support command and control during military operations.
- ◆ Mechanisms will be in place to foster cooperation among law enforcement and other appropriate authorities to maximize timely sharing of intelligence information via electronic exchange on potential smuggling and terrorist activities.
- ◆ Security measures are integral to the design and operations so as to protect the public and minimize impact to user. Security requirements are balanced based upon the threat and the requirements of cost effective operations.
- ◆ Highlight the national security imperative for commercial port improvements and maintenance that improve the capability to deploy and sustain military forces.
- ◆ Assure adequate U.S. flag shipping and crews available for material movement in all threat conditions.
- ◆ A federal lead agency with statutory authority to be responsible and accountable for coordination of law enforcement, MTS infrastructure security, and response.

Environment. All maritime interests, as users and stewards of the nation's waterways, will implement sustainable practices that protect, enhance, and aid in the restoration of marine resources while meeting the nation's transportation needs. Environmental protection will be consistently incorporated into all aspects of maritime activities and decision making.

To achieve this vision efforts should be taken to ensure that the MTS is:

- ◆ Guided by policies that ensure environmental concerns are fully integrated throughout the planning process to support development without forsaking environmental goals.
- ◆ Designed and operated to preserve and enhance the natural resources of the nation while ensuring large volumes and varieties of cargo and passengers can be efficiently transported over the waterways without degrading the environment.
- ◆ Guided by environmental policies that avoid costly inefficiencies because of fragmented approaches, inconsistent standards, and redundant regulations.
- ◆ Staffed with a workforce trained to understand and deal with environmental concerns and hazards.
- ◆ Supported by pollution response that is rapid, effective, and supported by optimal technology for monitoring and responding to environmental incidents.

- ◆ Overseen by uniform compliance/enforcement of all air and water standards at local, state, and federal levels.
- ◆ Managed by a comprehensive process including planning and permitting for dredging and disposal of dredged material that protects the environment while allowing for efficient, effective, and timely channel development and maintenance.

Fully supported through the development of partnerships with all stakeholders including public education and outreach programs.